

We claim:

1. A control module for an injector of an accumulator injection system for the control and guidance of a valve body, comprising a high-pressure inflow for the delivery of fuel, a guide device for guiding the valve body, a control space, an inflow throttle which makes a connection between the high-pressure inflow and the control space, an outflow throttle which makes a connection between the control space and a control valve, and a control piston which is arranged in the control space and which is connected indirectly or directly to the valve body and is connected at its end opposite the control space to a high-pressure region on the valve body.
2. The control module as claimed in claim 1, comprising a bypass throttle which makes a connection between the high-pressure inflow and the control valve.
3. The control module as claimed in claim 2, comprising an annular duct which is arranged between the high-pressure inflow and the bypass throttle.
4. The control module as claimed in claim 3, wherein the annular duct is formed in the control module and/or in a nozzle housing.
5. The control module as claimed in claim 1, wherein the guide device is designed as a cylindrically annular extension.
6. The control module as claimed in claim 5, wherein a connection region, which connects the high-pressure inflow to the high-pressure region on the valve body, is provided on the outer circumference of the guide device or on the inner circumference of the nozzle housing.
7. The control module as claimed in claim 6, wherein the connection region is formed by a duct-like recess or by a plurality of recesses distributed on the outer circumference of the guide device and/or on the inner circumference of the nozzle housing.

8. The control module as claimed in claim 1, wherein a nozzle spring for the return of the valve body is supported, on the one hand, on the guide device and, on the other hand, on a spring plate arranged on the valve body.
9. The control module as claimed in claim 1, wherein centering surfaces for centering the valve body are provided on the guide device.
10. The control module as claimed in claim 1, wherein the control piston and the valve body are designed as a common one-piece component.
11. The control module as claimed in claim 1, wherein the valve body is designed as a nozzle needle.

12.           An injector for an accumulator injection system having a control module for the control and guidance of a valve body, comprising a high-pressure inflow for the delivery of fuel, a guide device for guiding the valve body, a control space, an inflow throttle which makes a connection between the high-pressure inflow and the control space, an outflow throttle which makes a connection between the control space and a control valve, and a control piston which is arranged in the control space and which is connected indirectly or directly to the valve body and is connected at its end opposite the control space to a high-pressure region on the valve body.

13. A control module for an injector of an accumulator injection system for the control and guidance of a valve body, comprising

- a high-pressure inflow for the delivery of fuel;
- a guide device for guiding the valve body;
- a one-part springless control space;
- a control piston which is arranged in the control space and which is connected indirectly or directly to the valve body and is connected at its end opposite the control space to a high-pressure region on the valve body;
- an inflow throttle which makes a connection between the high-pressure inflow and the control space;
- an outflow throttle which makes a connection between the control space and a control valve in any position of the control piston; and
- a nozzle spring for the return of the valve body, which surrounds the valve body and is arranged in the high-pressure region.

14. The control module as claimed in claim 13, comprising a bypass throttle which makes a connection between the high-pressure inflow and the control valve.

15. The control module as claimed in claim 14, comprising an annular duct which is arranged between the high-pressure inflow and the bypass throttle.

16. The control module as claimed in claim 15, wherein the annular duct is formed in the control module and/or in a nozzle housing.

17. The control module as claimed in claim 13, wherein the guide device is designed as a cylindrically annular extension.

18. The control module as claimed in claim 17, wherein a connection region, which connects the high-pressure inflow to the high-pressure region on the valve body, is provided on the outer circumference of the guide device or on the inner circumference of the nozzle housing.

19. The control module as claimed in claim 18, wherein the connection region is formed by a duct-like recess or by a plurality of recesses distributed on the outer circumference of the guide device and/or on the inner circumference of the nozzle housing.

20. The control module as claimed in claim 13, wherein the nozzle spring for the return of the valve body is supported, on the one hand, on the guide device and, on the other hand, on a spring plate arranged on the valve body.

21. The control module as claimed in claim 13, wherein centering surfaces for centering the valve body are provided on the guide device.

22. The control module as claimed in claim 13, wherein the control piston and the valve body are designed as a common one-piece component.

23. The control module as claimed in claim 13, wherein the valve body is designed as a nozzle needle.